

A NEW SPECIES OF *SPATHIUS* NEES FROM WASHINGTON (HYMENOPTERA: BRACONIDAE)^{1, 2}

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ABSTRACT: The braconid *Spathius matthewsi* n.sp. is described from two specimens reared from *Rhyncolus brunneus* Mannerheim (Coleoptera:Curculionidae) in western Washington.

Matthews' 1970 revision of the genus *Spathius* Nees of North America north of Mexico includes 21 species, only 3 of which occur on the west coast of North America. A recent study of the insect community of dead Douglas-fir (*Pseudotsuga menziesii*) (Mirb.) Franco in western Washington produced two specimens of an undescribed *Spathius*. Considering the variability of some species of *Spathius*, it is undesirable to describe a new species from two specimens, but there is little chance that additional specimens will be obtained during the next few years. The specimens seem sufficiently distinctive in morphology, host, and geographic range to preclude the possibility that they represent a described species of *Spathius*.

Spathius matthewsi, n.sp.

Description of Holotype female

Body: length 2.9 mm; ratio of length of ovipositor sheath to length of forewing 1.15; testaceous; vertex, posterior half of gaster, tip of ovipositor brown; wings lightly infumated, with a hyaline band through stigma to posterior border.

Head: antenna 3.8 mm, 26 flagellomeres, each with 2 straight apical setae 1.5-2 times length of curved setae sparsely covering flagellomere; face finely transversely striate, sparsely finely punctate, with fine hairs; frons shining, smooth, with a few delicately etched fine transverse striae anterior to ocellar triangle; ocellar triangle raised, smooth, shining; vertex and temples smooth, shining.

Thorax, including propodeum: lateral grooves of prothorax delimited by a dorsal carina and with several transverse carinae; mesonotum convex and declivitous anteriorly; lobes of mesonotum evenly granulate; notauli deeply impressed, converging posteriorly to a broad depressed area having wide transversely carinate lateral areas and a narrow granular median line; scutellar furrow crossed by 6 evenly spaced carinae; scutellum triangular, convex, with a recumbent seta on each side at apical third; upper half of mesopleuron longitudinally rugose, lower half granulate; sternaulus shallow, without transverse

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carinae, a weak carina along lower edge of sternaulus, becoming stronger at posterior end of sternaulus and continuing to mesocoxal cavity; prepectal carina complete, prepectal area finely rugose; propodeum granulate dorsally, rugose laterally, basal carina absent, lateral and dorsal carinae weak, propodeal carinae becoming well developed, conspicuous on posterior third of propodeum; areola poorly defined apically, well defined basally, areola almost twice as long as greatest width, area petiolaris well defined, longer than wide.

Leg: fore tibiae with 2 rows of prominent spines; outer lobe of hind tibiae with two inconspicuous bristles; ratio of lengths of hind tarsomeres from basal tarsomere to apical tarsomere 5.0/2.0/1.0/.9/1.5.

Wing: subdiscoideus not interstitial; first intercubitus longer than second abscissa of radius; length of forewing from tegula to apex 2.8 mm.

Abdomen: petiole slightly arched at base, rugose, longitudinally strigose in broad apical area; tergite 2+3 with basal lateral faintly reticulated patch on each side, tergites 2-7 otherwise smooth, shining; ovipositor sheath 3.2 mm; dorsal petiole length/dorsal length of tergite 2+3 1.75.

Holotype female and damaged paratype: Tahuya, Mason Co., Washington, 21 June 1975 (M. and N. Deyrup); from gallery of *Rhyncolus brunneus* Mannerheim (Curculionidae) in *Pseudotsuga manziesii*. Holotype and paratype will be deposited in the U.S. National Museum.

Male: Unknown.

Remarks. The carina extending from the posterior end of the sternaulus is a diagnostic character of the *trifasciatus* group of *Spathius* (Matthews, 1970); the relationship to the *trifasciatus* group will be more certain if the male of *S. matthewsi* proves to have swollen femora. *Spathius matthewsi* keys out to *S. trifasciatus* Riley in Matthews' 1970 key. *Spathius trifasciatus* may be distinguished from *S. matthewsi* by the following characters: darker color; transversely striate frons, ocellar triangle, and anterior vertex; longitudinal carinae in depressed area where notauli converge; rugose dorsum of propodeum; confluent areola and area petiolaris; 6 to 10 spines on outer lobe of hind tibia. In addition, *S. trifasciatus* is an eastern and midwestern species associated with scolytids in *Carya* and other broadleaf trees (Matthews, 1970).

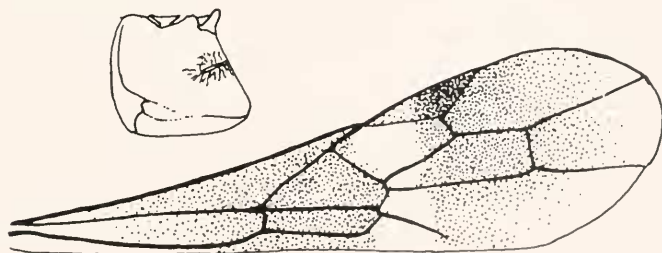


Figure 1. Mesopleuron and forewing of *Spathius matthewsi*.

The host, *Rhyncolus brunneus* Mannerheim, is not a bark weevil like the other weevil hosts of Nearctic *Spathius*, but a true wood borer usually found in dead dry standing conifers. Possible alternate hosts are not likely to be weevils but rather anobiids of the genera *Xestobium* and *Coelostethus*.

This species is named for Dr. Robert Matthews in appreciation of his excellent revision of Nearctic *Spathius*.

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LITERATURE CITED

Matthews, Robert W. 1970. A revision of the genus *Spathius* in America north of Mexico (Hymenoptera: Braconidae). Contrib. Amer. Entomol. Inst. 4: 1-86.

HERBERT HOLDSWORTH ROSS

1908-1978

Dr. Herbert H. Ross, former Assistant Chief, Acting Chief (1962), Principal Scientist, and Head, Section of Faunistic Surveys and Insect Identification of the Illinois Natural History Survey, died at noon Thursday, November 2, 1978, in Athens, Georgia. He was 70.

Born in Leeds, England, Dr. Ross received his early education in British Columbia, Canada, and graduated with his bachelor's degree in agriculture from the University of British Columbia. He received his M.S. and Ph.D. from the University of Illinois.

Dr. Ross began his career with the Illinois Natural History Survey in 1927 as an assistant entomologist, and was appointed head of the section of faunistic surveys and insect identification in 1935. He became principal scientist in 1956, and the Survey's first assistant chief in 1963. He also held the rank of professor of entomology with the University of Illinois.

Dr. Ross retired from the Survey in August 1969 after more than 41 years of service. He immediately accepted an appointment as Professor of Entomology at the University of Georgia and retired again in 1976.

He was a past president and secretary-treasurer of the Entomological Society of America, past president and secretary of the Society for the Study of Evolution and past president of the Society of Systematic Zoologists. He was a member of Sigma Xi, the Royal Entomological Society of London, Ecological Society of America, American Association for the Advancement of Science, American Institute of Biological Sciences, Society of Systematic Zoologists, and others. He was a corresponding member of the American Entomological Society.

A prolific writer, Dr. Ross published over 200 technical research papers and books. "A Textbook in Entomology," published in 1948, gained immediate recognition as one of the most popular books in the field, and it has been translated into several foreign languages. Later books included "Understanding Evolution" published in 1966 by Prentice-Hall; "Evolution and Classification of the Mountain Caddisflies," University of Illinois Press, 1956; and "A Synthesis of Evolutionary Theory," printed in 1962 by Prentice-Hall.